

Doing Business with State and Federal Government Breakout Session

4:00 – 5:20 PM

Session Moderator
James Gazewood, BLM

Renewable Energy Business Summit - 11/15/10

Session Panel Objectives

1. Provide Insight on an Important GOED Program to Assist the Growth of Small Businesses to Access or Obtain State of Utah Contracts
 - Fred Lange, Director of GOED's PTAC Program

Session Panel Objectives (Cont'd)

2. Provide RE Project Development and Program Updates for State of Utah, Federal and DoD Land Activities

- Kevin Carter, Director of State of Utah's SITLA
- Elise Brown, RE Coordinator, Utah Geological Survey
- Mary Enges, Energy Program Manager, Ogden Air Logistics Center, Hill AFB
- Jim Gazewood, RE Program Coordinator, BLM Utah

Renewable Energy Project Activity On BLM Utah Public Lands

James Gazewood

Renewable Energy Program Coordinator

BLM Utah State Office

November 15, 2010



Presentation Outline

- BLM Renewable Energy Program Framework
- High Priority RE Fast-Track Projects
- Overview of BLM Utah RE Project Activity for
 - ✓ Wind Energy
 - ✓ Solar Energy
 - ✓ Geothermal Energy
 - ✓ Biomass Energy
- Close: Issues/Observations



BLM RE Program Framework

- Secretarial Order 3283 of Jan. 16, 2009 – Enhancing Renewable Energy Development on the Public Lands
 - ✓ Designated BLM Renewable Energy Coordination Offices (RECO) for Permitting of Environmentally Responsible
 - Wind, Solar, Geothermal and Biomass Operations
 - Siting of Electrical Transmission Facilities on the Public Lands
 - BLM RECO Designated States include AZ, CA, NV and WY
 - Additional RE Staff allocated to CO, ID, NM, OR, and **UT (5 FTE)**
 - ✓ BLM Approves RE Projects under ROW Authorizations
 - Granted After Completing Required NEPA Analysis (e.g., EA or EIS)



High Priority RE Fast-Track Projects (ARRA Funds)

- ✓ 14 Solar Projects:
 - 1-AZ, 9-CA, & 4-NV
- ✓ 9 Wind Turbine Projects:
 - 4-CA, 2-NV, 1-OR, 1-UT, & 1-WY
 - enXco's Mineral Mountain 53 Turbine Project (More Testing)
- ✓ 6 Geothermal Projects:
 - ✓ 6-NV
- ✓ 7 Transmission Projects:
 - ✓ 2-CA, 3-ID, 2-NV
 - 500 kV – Energy Gateway South
 - 600 kV DC - Transwest Express



This map is for general reference only and reflects current permitting plans.
It may not reflect the final routes or construction sequence.

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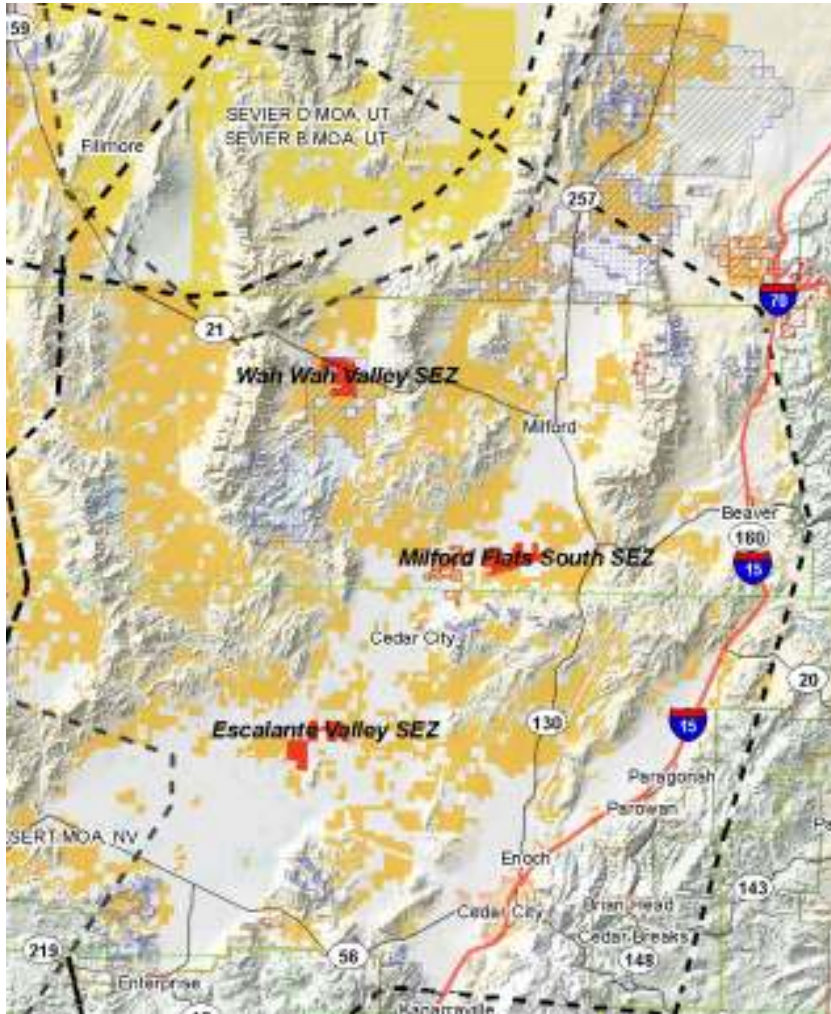
Overview of BLM Utah's RE Project Activity

- Wind Energy Projects
 - ✓ 35 Wind Metrological (MET) Testing ROWs
 - 19 Processed and 16 Pending – Cedar City, Fillmore, Salt Lake FOs
 - Permits 137 met towers across 698,000 acres
 - ✓ 4 Wind Development ROWs (2 Approved /3 Pending)

	<i>BLM Lands</i>		<i>Project Total</i>	
	<i>Turbines</i>	<i>MWs</i>	<i>Turbines</i>	<i>MWs</i>
<i>Approved ROWs</i>				
<i>Milford Phase I</i>	28	42.0	97	145.5
<i>Milford Phase II</i>	33	49.5	60	90.0
<i>Subtotal</i>	61	91.5	157	235.5
<i>Pending ROWs</i>				
<i>Milford Phase III</i>	TBD	TBD	300	450.0
<i>Mineral Mountain</i>	TBD	TBD	53	80.0
<i>Harmony Mountain</i>	43	90.3	51	107.1
<i>Subtotal</i>	43	90.3	404	637.1
<i>Total</i>	104	181.8	561	872.6



Overview of BLM Utah's RE Project Activity



Solar Projects - Development of Draft Programmatic EIS

- ✓ Designating 25 SEZs with 3 SEZs in SW Utah
 - Milford Flats South - 6,440 acres
 - Wah Wah Valley - 6,097 acres
 - Escalante Valley - 6,648 acres
- ✓ Development Alternative for High Solar Insolation Lands (Approximately 1.24M Acres)
- ✓ Completion of the Draft Solar PEIS is Expected in Dec. 2010

Overview of BLM Utah's RE Project Activity (Cont'd)



- Geothermal Resource Projects
 - ✓ 160,000 Acres under Lease – Up 60,000 Acres by Feb. Sale
 - ✓ 3 Geophysical NOIs and 5 Authorized Development Projects

Overview of BLM Utah's RE Project Activity (Cont'd)

- Biomass Energy (Woody Variety)
 - ✓ BLM has Facilitated Organization of Utah Working Group
 - ✓ Have Received a DOE Grant to Study Kanab Area
 - ✓ Southern Utah Woody Biomass Group Conducted Field Day



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Current Issues

- ✓ RE Project Conflicts with Military Operational Areas
- ✓ Wildlife and Other Uses
- Transmission Constraints
- Local Stakeholder Concerns

Current Observations

- ✓ *Proactive State of Utah*
- ✓ *UGREEN and 10-Year Plan*
- ✓ *Improving Coordination and Collaboration*



Questions or Comments?

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U.S. AIR FORCE

Team Hill Energy Program

November 15, 2010

Mary A. Enges, Esq.



Hill Air Force Base, Utah



OGDEN AIR LOGISTICS CENTER

- Mission: Attain Energy Security at Hill AFB
 - Reduce Risk to Critical Mission From Loss of Commercial Power
 - Reduce Demand
 - Increase Energy Development
- Energy Development Office
 - Unites All Base Stakeholders for Unified Approach – Experts in Engineering, Contracting, Finance and Law
 - Waste-to-Energy; Solar; Landfill-Gas Facility; Energy Savings Performance Contracts



Market Overview

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- Current Energy Costs
 - \$29M Annual Energy Costs
 - Natural Gas, Steam, ESPC
 - Peak Summer Base Load – 45-48 MW
 - \$40M Fuels
- Supports Mission Requirements Serving 23,000+ Personnel
- Future Workload Increases Energy Intensity and Demand



Market Initiatives

OGDEN AIR LOGISTICS CENTER

- Waste-to-Energy Enhanced Use Lease (EUL)
- Co-Generation EUL
- “Super” Energy Savings Performance Contract
- Ground-Source Heat Pumps
- Geothermal Exploration
- Bio-fuels Development
- Solar
- Wind
- Bio-fuels

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Way Ahead



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- Deploy Current Projects
- Explore Public/Private Ventures
- Team with State Entities – GOED, Utah Clean Energy, Governor's Energy Advisor, State Energy Program/Utah Geological Survey
- Embrace Local Communities
- Continue to Foster Public Support
- Further Military Installation Energy Collaborative – "MIEC"
- Include Other Federal Agencies, DOE, BLM
- Continue to Lead the Air Force

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Hill AFB Locations



UTTR North



Little Mountain



Hill AFB



UTTR South



To Contact Team Hill Energy

OGDEN AIR LOGISTICS CENTER

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SITLA Programs for Renewable Energy

- Surface Leasing
 - Wind Leasing
 - Solar Leasing
 - Pumped storage hydroelectric



transactions (JVs, hybrid



Surface Leasing

- **Process:**

- Application followed by advertisement for competitive interest, followed by lease negotiation.
- Application to lease issuance 2-3 months.
- Met towers, instrument sites available under separate, simple right-of-entry (license) – can be issued within a week or two.

- **Solar Leases:**

- 3% royalty on gross electricity sales/sales of RECs; base rentals based on land values, credited against royalties.

- **Wind Leases:**

- SITLA follows BLM standard of per megawatt capacity fees in lieu of royalties; base rentals based on land values, credited against capacity fees.



Mineral Leasing

- Carbon Sequestration
 - SITLA owns large contiguous blocks near large industry CO2 emitters.
 - Still developing business terms with industry and research partners.
- Geothermal
 - Nominate lands for quarterly sealed bid lease sales.
 - Lease issuance based on bonus bid.
 - Royalty based on gross electric sales; 2.25 % first five years, 3.5% thereafter.

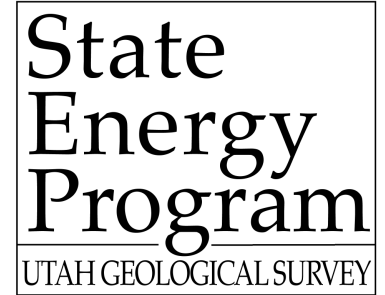
Other Business Arrangements

- Legislature has given SITLA transactional flexibility:
 - Joint ventures for development of industrial parks, vertical real estate.
 - Hybrid surface mineral transactions, e.g. Western Energy Hub/Magnum Gas Storage near Delta, Utah – agreement for subsurface natural gas storage with future potential compressed air energy storage, gas generation, other.
 - **Make us a proposal !**

SITLA Contact Information

- Surface
 - Lou Brown: loubrown@utah.gov ;
 - (435) 896-6494
- Mineral
 - Tom Faddies: tomfaddies@utah.gov ;
 - (801) 538-5150
- Other
 - Kevin Carter: kevincarter@utah.gov ;
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Utah State Energy Program



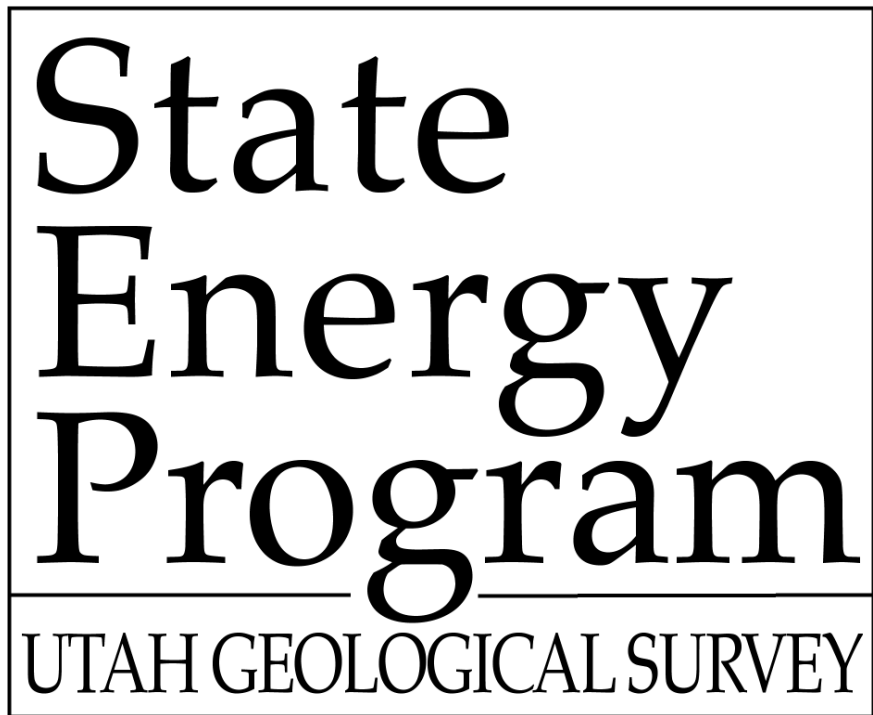
- Role played in the renewable and energy efficiency marketplaces
 - USEP partners with the U.S. DOE to deliver innovative and effective programs that increase energy efficiency, renewable energy and energy education.
 - Administering all ARRA funding for RE and EE
 - Resource assessment, tax credits, rebate programs, economic analysis of bringing energy to market, etc.
 - Notable Programs: Anemometer Loan Program, Utah Renewable Energy Zones Task Force Phase I & II

Market Overview

- Work with industry by way of helping them navigate the renewable energy landscape in Utah.
- Renewable Energy Companies, homeowners, landowners, other government agencies, etc.
- Renewable Energy is on the rise and Utah's policies are moving forward on a local and state level.

Observations

- More partnerships among government, private and non-profit sectors with ARRA funding.
- Growing amount of expertise in government.
- Policies becoming more friendly to renewable energy state-wide



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